

REMARKS/ARGUMENTS

At the outset, Applicants wish to thank the Examiner for the indication that the present application contains allowable subject matter. Specifically, claims 50-58 have been allowed, while dependent claims 46 and 47 have been indicated as being allowable if rewritten in independent form. Applicants respectfully submit that the remaining claims in this application are also in condition for allowance, for reasons discussed below. In particular, the present paper is being filed after a Final rejection to help narrow the issues on appeal, because there are at least several unamended claims addressed below.

Claims 1-3, 6, 9, 10, 15-23, 27, 28, 31-36, 39 and 42-59 were pending in the Office Action. Upon entry of the present amendment, these claims remain pending. In the Office Action, claims 1-3, 6, 9-10, 15-23, 27-28, 31-36, 45 and 48 stand rejected under 35 U.S.C. 103(a) as being unpatentable over a combination of Yano et al. (U.S. Patent No. 6,701,372) and Borella (U.S. Patent No. 6,442,603). Claims 39, 42-44, 49 and 59 stand rejected under 35 U.S.C. 102(e) as being anticipated by Yano et al. Applicants respectfully traverse these rejections, especially insofar as they may be applied to the claims as amended.

The Rejections Under Yano et al.

Applicants begin by addressing the rejections of claims 39, 42-44, 49 and 59, which rely solely on Yano et al. This cited patent relates to a data communications apparatus used to transmit captured video data over a network. The Yano et al. system calculates the volume of data that is out on a network 1-3 en route between the transmitter and receiver, and uses this volume of data to adjust packet size and/or transmission rates for future transmissions. See, e.g.,

Yano et al., col. 3, lines 14-29 and col. 4, lines 13-17. Yano et al. does this to keep the volume of data out on the network at a constant level, which helps avoid disturbing the use of the network by other parties. Yano et al., col. 6, lines 18-26. As will be discussed below, Yano et al. fails to teach or suggest the novel inventions recited in the rejected claims.

Unamended Independent Claim 49

Yano et al. fails to anticipate the claim 49 mobile terminal, which is not amended herein. Indeed, Yano et al. does not ever teach or suggest that its terminals (e.g., 1-1, 1-2) are mobile. Accordingly, Yano et al. fails to anticipate the claim 49 mobile terminal with its recited “plurality of applications executing on the mobile terminal.”

Claim 49 also recites that “the bit rate measurer is arranged to measure the bit rate at an application level within the mobile terminal, such that a perceived bit rate is measured for a plurality of applications executing on the mobile terminal.” To show this feature, and the recited plurality of applications, the Office Action cites to Yano et al. col. 1, lines 5-8. That portion of Yano et al. states that “video data, audio data, and the like” may be transmitted using its system, but is silent as to whether that data is for one application executing on the terminal, or for a plurality of applications executing on the terminal. Without such a teaching, Yano et al. cannot anticipate the claim 49 mobile terminal, which recites that “a perceived bit rate is measured for a plurality of applications executing on the mobile terminal.”

Claim 49 also recites “the time period is a sum of time durations of each of the transaction units.” The Office Action cites a number of passages from Yano et al. as allegedly teaching this feature (col. 3, line 57 to col. 4, line 3; col. 5, line 60 to col. 6, line 26; col. 12, lines 45-57; and col. 13, last paragraph to col. 14, second paragraph), but none of these passages

makes any reference to a sum of time durations of each of the transaction units, as recited in claim 49. The col. 3-4 portion describes the transmitter breaking up data for transmission; the col. 5-6 portion describes how the video capture time interval can be adjusted to control how much video data is sent at a time; the col. 12 portion refers to the adjustment of the transmission start timing and bit rate; while the col. 13-14 portion calculates a packet output interval and a wait time. None of these portions teaches or suggests the recited sum. Indeed, it is unclear what time durations are allegedly summed in the cited portions of Yano et al., and clarification is requested if this rejection is to be maintained.

For at least these reasons, Applicants submit that Yano et al. does not anticipate claim 49, and that the rejection be reconsidered and withdrawn.

Unamended Independent Claim 59 and Dependent Claims 39, 42-44

Yano et al. fails to anticipate these claims. Independent claim 59 is also not amended herein, and recites, among other features, “the bit rate measurer is arranged to measure the bit rate at an application level within the client, such that a perceived bit rate is measured for a plurality of applications executing on the client.” As it did with claim 49, the Office Action relies on Yano et al. col. 1, lines 5-8 to show this claim 59 feature. As discussed above, that portion of Yano et al. merely states that “video data, audio data, and the like” may be transmitted using the Yano et al. system, but says nothing about the number of applications. Accordingly, Yano et al. cannot anticipate claim 59.

Furthermore, claim 59 also recites “the time period is a sum of time durations of each of the at least one transaction unit.” As with claim 49, the Office Action alleges that this feature is taught at Yano et al. (col. 3, line 57 to col. 4, line 3; col. 5, line 60 to col. 6, line 26; col. 12, lines

45-57; and col. 13, last paragraph to col. 14, second paragraph). As discussed above with respect to claim 49, none of these passages teaches a time period being a sum of time durations, as recited. Applicants also submit that it is unclear to Applicants precisely what “sum” is allegedly shown in the reference, and requests clarification if this rejection is to be maintained.

Claims 39 and 42-44 depend from claim 59, and are allowable for at least the same reasons as claim 59, and further in view of the various additional features recited therein. For example, claim 44 recites “an inactive application detector to detect when one of the applications is inactive for a specified period of time, the inactive application detector being arranged to report to the server that one of the applications is inactive when the inactive application detector determines that the one of the applications is inactive for the specified period of time.” The Office Action alleges that such an inactive application detector is taught by Yano et al. at col. 11, last paragraph to col. 12, first paragraph. This portion of Yano et al. fails to teach or suggest the recited inactive application detector. Instead, this portion of Yano et al. summarizes how, using the Yano et al. system, transmission rates are adjusted to try and predict and control the amount of data transmitted but not yet received. There is no teaching or suggestion of the recited inactive application detector; the cited portion does not even mention any inactive applications at all, or applications that are inactive for a specified period of time.

The Rejections Under Yano et al. and Borella

In rejecting claims 1-3, 6, 9-10, 15-23, 27-28, 31-36, 45 and 48, the Office Action combines Yano et al. with Borella. Borella relates to a method for delivering electronic content in response to a request, such as a request for a web page, in which network latency is used to

determine whether the requested web page will be sent in its entirety, or whether only portions of the web page will be sent. As will be discussed below, the addition of Borella does not teach or suggest the recited claims.

Independent Claim 1 and Dependent Claims 2-3, 6, 9-10 and 15-21

Amended independent claim 1 recites the following steps:

- (1) identifying at least one transaction unit, said transaction unit including one or more message pairs;
- (2a) if said transaction unit has only a single message pair, confirming that said single message pair does not overlap other message pairs outside of the transaction unit;
- (2b) if said transaction unit has a plurality of message pairs, confirming that said message pairs are overlapping;

Applicants submit that neither Yano et al. nor Borella, alone or in combination, teaches or suggests the claim 1 method with the step recited above. For example, although Yano et al. describes a transmission and receiver report (see, e.g., col. 3, lines 22-23), and even assuming these are message pairs, there is no mention as to whether these two overlap other message pairs. Similarly, although Borrella refers to “ping” packets that are returned to the sender with a timestamp (see, e.g., col. 5, lines 34-35), there is similarly no mention as to whether the ping and its return overlap other message pairs. Furthermore, Applicants do not see the recited steps of confirming in these references. For at least these reasons, Applicants submit that amended independent claim 1 distinguishes over the cited art, and is in condition for allowance.

Claims 2-3, 6, 9-10 and 15-21 depend from claim 1, and are allowable for at least the same reasons as claim 1, and further in view of the additional features recited therein. For example, claim 2 recites “the duration of said at least one transaction unit is the sum of time durations of each of the plurality of transaction units.” The Office Action relies on Yano et al.,

col. 7, line 48 to col. 8, line 24 and col. 10, lines 34-46. In those portions, Yano et al. describes how the true round-trip time RTT_{cur} must remove the time consumed at the receiver (between receiving the initial transmission and actually sending the receiver report) from the overall time between transmitting the data and receiving the receiver report. There are no time periods being summed here. As another example, claim 18 recites “[t]he method of claim 10, wherein act (3) is performed at an application level within the client, such that a perceived bit rate is measured for a plurality of applications executing on the client.” The Office Action refers to Yano et al. Figs. 10 and 11 as allegedly disclosing this feature. Those figures do not teach or suggest the claim 18 method. Indeed, there appears to be only one application mentioned in those figures (Fig. 11 – “Information Unique to Application”), and not a plurality.

As a further example, claim 21 recites the steps of: “reporting, by the client to the server, that one of the applications is inactive when the detecting determines that the one of the applications is inactive for the specified period of time; and reallocating, by the server, the amount of the bandwidth to other applications after receiving a report from the reporting.” The Office Action cites Yano et al., col. 11, last paragraph to col. 12, first paragraph. This portion merely describes how transmission rates are adjusted to control the volume of data en route between the transmitter and receiver, and fails to teach or suggest the recited determining that an application is inactive for a specified period of time and the recited reallocation of bandwidth.

Independent Claim 22 and Dependent Claims 23, 27-28 and 31-34

Amended independent claim 22 recites, among other features:

- (1) identifying at least one transaction unit, said transaction unit including one or more message pairs;

(2a) if said transaction unit has only a single message pair,
confirming that said single message pair does not overlap other
message pairs outside of the transaction unit;

(2b) if said transaction unit has a plurality of message pairs,
confirming that said message pairs are overlapping;

Similar language is recited in amended claim 1, discussed above, and for at least the same reasons as those discussed above with respect to claim 1, Applicants submit that claim 22 also distinguishes over the cited art, and is in condition for allowance. Claims 23, 27-28 and 31-34 depend from claim 22, and are allowable for at least the same reasons as claim 22, and further in view of the advantageous and novel features recited therein. For example, claim 34 recites, among other features, the step of “detecting, by the client, when one of the applications is inactive for a specified period of time.” The Office Action rejects claim 34 on the same grounds as claim 21, and as discussed above, the cited portion of Yano et al. does not teach or suggest detecting “when an application is inactive for a specified period of time.”

Independent Claims 35 and 45, and Dependent Claims 36 and 46-48

Amended independent claims 35 and 45 both recite, among other features:

the number of bits measured are those included only within at least one transaction unit, wherein said at least one transaction unit has one or more transaction pairs that do not overlap with transaction pairs outside of the transaction unit, and wherein if said transaction unit has a plurality of transaction pairs, said plurality of transaction pairs are overlapping,

Neither Yano et al. nor Borella, alone or in combination, teaches or suggests the claim 35 apparatus and claim 45 system with the above feature. For example, although Yano et al. describes a transmission and receiver report (see, e.g., col. 3, lines 22-23), and even assuming those are transaction pairs, there is no mention as to whether these two overlap other message pairs. Similarly, although Borella refers to “ping” packets that are returned to the sender with a

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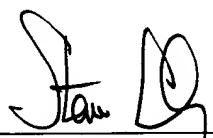
timestamp (see, e.g., col. 5, lines 34-35), there is similarly no mention as to whether the ping and its return overlap other message pairs. For at least these reasons, Applicants submit that amended independent claims 35 and 45 distinguish over the cited art, and are in condition for allowance. Claim 36 depends from claim 35, while claims 46-48 depend from claim 45, and are allowable for at least the same reasons as claims 35 and 45, respectively, and further in view of the various advantageous and novel features recited therein¹.

CONCLUSION

All rejections having been addressed, Applicants respectfully submit that pending claims 1-3, 6, 9, 10, 15-23, 27, 28, 31-36, 39 and 42-59 distinguish over the art of record, and are in condition for allowance. However, if the Examiner feels that further discussion and/or amendment may be helpful, the Examiner is invited to telephone the Applicants' undersigned representative at the number appearing below.

Respectfully submitted,
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¹ The Office Action already indicates that claims 46 and 47 distinguish over the cited art.